

## CONNECTING HUMAN AND ENVIRONMENTAL HEALTH IN VIRGINIA



### ECOSYSTEM HEALTH LINKS

Human, animal, plant, and ecosystem health are all connected. Addressing these links is essential for protecting the health of Virginians.

Our natural and managed ecosystems, from the Shenandoah Valley, to the Piedmont and Coastal Plain, are increasingly subject to pressures of climate change. This has serious consequences for the health of plants, animals and people. Ecosystem harms ultimately impact Virginia's economy, communities and way of life.

### EMERGING HEALTH THREATS

Heatwaves in the Southeast are happening more often and the heat season is longer. Heat waves are longer and stronger in some cities.



Higher temperatures increase smog and wildfire smoke. These worsen air quality, harming our lungs, hearts, and brains and creating a risk for newborn infants.

Sea level in the Southeast rose by 6 inches on average between 1970–2020. Extreme rainfall can flood roads and overcome sewer systems.



### THE ONE HEALTH APPROACH

One Health is an approach that is collaborative, multisectoral, and transdisciplinary. It aims to achieve optimal health by understanding how the health of people, animals, and their shared environments are connected.





Increasing ocean temperature due to climate change increase the growth of marine bacteria like Vibrio.



Warmer weather is lengthening the plant growing season, causing pollen seasons to start earlier and last longer.



Increased wildfire smoke has reversed around 25% of U.S. air-quality improvements made between 2000 and 2016.



Marine bacteria can cause a variety of human infections, including wound, blood, ear and gastrointestinal infections.

From: [https://wwwnc.cdc.gov/eid/article/29/3/22-1568\\_article](https://wwwnc.cdc.gov/eid/article/29/3/22-1568_article)



Longer and stronger pollen seasons worsen seasonal allergies and allergy-induced asthma.

From: <https://www.hsph.harvard.edu/news/hsph-in-the-news/allergies-are-getting-worse-with-climate-change/>



Exposure to wildfire smoke can cause asthma attacks, hospitalizations, decreased lung function, and airway irritation.

From: <https://www.nature.com/articles/d41586-023-02794-0>

## NEED FOR COLLABORATIVE EFFORTS

Virginia's changing climate affects the health of people, animals and ecosystems. Intersecting challenges require diverse stakeholders to embrace a collaborative and multisectoral approach.

Virginia Clinicians for Climate Action (VCCA) recognizes One Health as a proven approach to supporting human, animal and environmental health in our changing climate.